What is claimed is:

1. A method of transmitting data over a communications network, comprising the steps of:

multicasting content in a first transmission over a data network from a sender to a multicast group comprising a plurality of receivers;

in each of said receivers concurrently performing the steps of:

detecting a missing portion of said content; and

responsive to said step of detecting, delaying for a random interval ;

thereafter transmitting no more than one negative acknowledgement in a second transmission from one of said receivers to said sender; and

responsive to said negative acknowledgement multicasting said missing portion in a third transmission from one of said sender and another of said receivers to said multicast group.

2. The method according to claim 1, wherein said random interval has a lower limit given by

$$LL = (a_1 t_{min}) x\ b$$

wherein x is a multiplication operator, a_1 is a proportionality constant, t_{min} is a minimal round trip transmission time between said sender and a respective one of

said receivers, and b is a size of a largest packet of said missing portion.

3. The method according to claim 1, wherein said random interval has an upper limit given by

$$UL = (a_1 t_{min}) x\ b$$

wherein x is a multiplication operator, a_2 is a proportionality constant, t_{max} is a maximum round trip transmission time between said sender and a respective one of said receivers, and b is a size of a largest packet of said missing portion.

4. The method according to claim 1, further comprising the step of

determining a current quantity of traffic on said data network;

wherein said second transmission is sent when said current quantity is less than a predetermined value.

5. The method according to claim 1, wherein said random interval is a shortest said random interval of said receivers.

6. The method according to claim 1, wherein said third transmission is sent by said sender.

7. The method according to claim 1, wherein said third transmission is sent by one of said receivers.

8. A computer software product, comprising a computer-readable medium in which computer program instructions are stored, which instructions, when read by at least one computer, cause said at least one computer to execute a method of transmitting data over a data network, comprising the steps of:

multicasting content in a first transmission over said data network from a sender to a multicast group comprising a plurality of receivers;

in each of said receivers concurrently performing the steps of:

detecting a missing portion of said content;

determining a random interval; and

responsive to said step of detecting, delaying for said random interval ;

thereafter transmitting no more than one negative acknowledgement in a second transmission from one of said receivers to said sender; and

responsive to said negative acknowledgement multicasting said missing portion in a third transmission from one of said sender and another of said receivers to said multicast group.

9. The computer software product according to claim 8, wherein said random interval has a lower limit given by

$$LL = (a_1 t_{min}) x\ b$$

wherein x is a multiplication operator, a_1 is a proportionality constant, t_{min} is a minimal round trip transmission time between said sender and a respective one of said receivers, and b is a size of a largest packet of said missing portion.

10. The computer software product according to claim 8, wherein said random interval has an upper limit given by

$$UL = (a_1 t_{min}) x\ b$$

wherein x is a multiplication operator, a_2 is a proportionality constant, t_{max} is a maximum round trip transmission time between said sender and a respective one of said receivers, and b is a size of a largest packet of said missing portion.

11. The computer software product according to claim 8, further comprising the step of

determining a current quantity of traffic on said data network;

wherein said second transmission is sent when said current quantity is less than a predetermined value.

12. The computer software product according to claim 8, wherein said random interval is a shortest said random interval of said receivers.

13. The computer software product according to claim 8, wherein said third transmission is sent by said sender.

14. The computer software product according to claim 8, wherein said third transmission is sent by one of said receivers.

15. A computer system, comprising:

a first computer;

a second computer interconnected in a data network with said first computer, said first computer and said second computer receiving multicast content in a first transmission via said data network from a content server;

wherein said first computer and said second computer have program instructions stored therein, which instructions cause said first computer and said second computer to concurrently execute a method of transmitting data over a communications network, comprising the steps of:

detecting a missing portion of said content;

determining random intervals, wherein a first random interval of said first computer is shorter than a second random interval of said second computer; and

responsive to said step of detecting, said first computer delaying for said first random interval, and said second computer delaying for said second random interval; and

thereafter said first computer transmitting a first negative acknowledgement in a second transmission to said content server;

said content server resending said first negative acknowledgement to said second computer, wherein in an event that said second computer has not received said missing portion, said second computer suppresses a second negative acknowledgement therefor; and

receiving said missing portion in a third transmission from said content server.

16. The computer system according to claim 15, wherein said random intervals each have a lower limit given by

$$LL = (a_1 t_{min}) x\ b$$

wherein x is a multiplication operator, a_1 is a proportionality constant, t_{min} is a minimal round trip transmission time between said content server and a respective one of said first computer and said second computer, and b is a size of a largest packet of said missing portion.

17. The computer system according to claim 15, wherein said random intervals each have an upper limit given by

$$UL = (a_1 t_{min}) \times b$$

wherein x is a multiplication operator, a_2 is a proportionality constant, t_{max} is a maximum round trip transmission time between said content server and a respective one of said first computer and said second computer, and b is a size of a largest packet of said missing portion.

18. The computer system according to claim 15, wherein said first computer further performs the step of

determining a current quantity of traffic on said data network;

wherein said second transmission is sent when said current quantity is less than a predetermined value.

19. The computer system according to claim 15, wherein said third transmission is sent by said content server.

20. The computer system according to claim 15, wherein said third transmission is sent by said second computer.